

EPA Region 5 Records Ctr.

STS

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June 3, 2008

Ms. Verneta Simon, On-Scene Coordinator Mr. Eugene Jablonski, On-Scene Coordinator US Environmental Protection Agency – Region 5 77 W. Jackson Blvd., SE-5J Chicago, Illinois 60604-3590

RE: Monthly Progress Report for 319 E. Illinois Street (now known as 465 N. Park Street), Chicago, Illinois STS Project No. 200702169

#### Dear Coordinators:

STS is providing a monthly progress report for gamma surveying activities at the above referenced site. The progress report is being provided in accordance with the United States Environmental Protection Agency (USEPA) request and the approved Work Plan<sup>1</sup>. The following paragraphs describe recent actions as well as activities planned for the end of May 2008.

### **Progress During Late April and Early May 2008**

- 1. On April 14, 2008, the parking lot was closed and construction fence was installed around the perimeter of the site.
- 2. On April 22, 2008, a 5 x 5-meter grid spacing was marked on the interior of the site along the north, east and south fencing and along the wall on the west side. The site is approximately 160 x 215 feet; resulting in an alpha-numeric grid that extends from A N to the east, and 1 11 to the south (refer to Figure 1).
- 3. Excavation of the asphalt began on Tuesday, April 29, 2008. The asphalt measured approximately 3-4 inches in thickness, and a gravel base course was encountered directly below. There were a few scattered areas (approximately 3% of the site) where typical urban fill was evident directly below the asphalt. Excavation of the asphalt continued through April 30, 2008. Asphalt remains approximately 8 feet into the property from the west end and 16 feet from the south end, but the western portion will be removed as potholing for caissons is done. After the removal of the asphalt, shrubbery along the north and east fencing was removed. Roots and soils were screened. In addition, there were two flower beds located in the middle of the property, bordered by curbs. As the excavation and removal of shrubbery, flower beds and curbs continued, a walk over surface gamma survey of the site was performed and completed on May 1, 2008. No elevated readings were detected.
- 4. On Tuesday. April 29, 2008, a site background for the gamma surveys was established through the collection of one minute counts at six locations characteristic of the site conditions (i.e., after removal of the asphalt and gravel base course). The background counts ranged from 6,685 to 8,417 cpm with an average of 7,794 cpm. Thus, the value of about 7,800 cpm will be utilized as a site-specific background value for subsequent screening.

<sup>&</sup>lt;sup>1</sup> STS (revised January 4, 2008) Work Plan for Investigation and Potential Removal of Radiologically Impacted Soil on 319 E. Illinois (now know as 465 N. Park Street), Chicago, Illinois. Approved by the USEPA in a letter dated April 24, 2008.

- 5. In June 2007, environmental soil borings and soil sampling were performed to survey for lead contamination. Two of the 41 samples collected exceeded the TCLP limit of 5 mg/L for lead. On May 1, 2008, four samples were collected at each of the two borings E9 and E25 (eight samples total) to refine the extent lead contamination. The depth of the original elevated results at each location was confined to a zone 8-10 feet below ground surface. Therefore, four samples were collected approximately 5-feet horizontally from the original sample location at the depth of the original samples. TCLP results for lead for the eight samples ranged from 0.034 to 0.53 mg/L (all less than the TCLP limit of 5 mg/L).
- 6. On May 2, 2008, potholing for caissons began. Screening was performed throughout the process in accordance with the Work Plan, and readings were recorded within the 5 x 5-meter grid as discussed above. Areas of removal began at a width of approximately 4 x 6 feet, and were screened in 18-inch lifts for the first 4 feet. As the search for obstructions continued, spoils were screened in the bucket and at the surface next to the excavation. Maximum gamma results are provided (Table 1) for potholing locations to date. Groundwater was generally encountered at approximately 10 feet. Native sands were encountered at about 8-10 feet, but for caissons potholed along the east side of the site the native sand was encountered at approximately 5-6 feet. Obstructions were encountered while potholing various locations and will be revisited to remove the obstructions. Spoils below obstructions will be screened down to native soil. After the caisson locations were cleared to a depth of 14 feet, the hole was backfilled.
- 7. While potholing, sheeting for the western edge of the arm extending north off of the Ogden Slip was encountered (approximately center of caisson numbers 86-87, extending north-south along the D line of the 5 x 5-meter grid) approximately 90 feet north into the property. Portions of a wooden slip wall were observed along the J line of the grid system. This is believed to be the eastern edge of the former slip arm (refer to Figure 1).
- 8. In May 2007, down-hole gamma surveys were conducted at numerous borings across the site. On May 5, 2008, a 20 x 20 foot area around the boring with the highest down-hole gamma readings (12,673 cpm shielded at a depth of 5-5.5 feet) was excavated to locate potentially impacted soil/fill (Figure 1). Screening was performed in 18-inch lifts according to the Work Plan with the lift thickness reduced to about 6-inches as the zone of the previously recorded elevated down-hole readings was approached. Another 18-inch lift was removed on the morning of May 7, 2008 resulting in a depth of 7 feet, with gamma survey results extending 8.5 feet into the surface. The surveyed area was expanded in late May 2008 from the original 20 x 20 foot area east to the slip arm sheet pile wall (Figure 1). Materials encountered throughout excavation include brick debris, discolored concrete debris, granite pavers, clays, as well as soils characteristic of typical urban fill. The maximum gamma readings observed were approximately 14,000 cpm. No readings were observed above the Ludlum meter cutoff of 19,017 cpm established based on the USEPA cleanup limit of 7.1 pCi/g.

## Planned Activities for Late May 2008

- 1. Activities for the week of May 26, 2008
  - Removal of lead impacted soil will be performed. The excavations will be limited by the delineation samples discussed previously.
  - · Caisson potholing will continue.

#### 2. Activities for June 2008

- Excavation of the large mat foundation in the center of the site may begin late in June 2008. Excavation
  depths may reach approximately 22 feet. Gamma surveying will be performed throughout the excavation
  process on any non-native urban fill/soil.
- Removal of the sheet piling along the western side of the arm of the Ogden Slip may occur in June, but an exact date has not yet been scheduled.
- Caisson potholing will continue.

If gamma readings indicative of radiologically-impacted soil are discovered, the area will be designated as an exclusion zone and the USEPA will be notified of its presence along with a schedule and/or plan to handle the material. Monthly reports will be submitted to the USEPA until approval of the closure report; unless an alternate

schedule is otherwise approved by the USEPA. If there are any questions regarding this report or the planned activities, please contact us at 847-279-2500.

Regards,

Jaclyn Webb Project Scientist

Steven C. Kornder, Ph.D. Senior Project Geochemist

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Attachments:

Table

Site Plan

CC:

M. Fulghum, USEPA

C. Martwick, USEPA

V. Mbogo, USEPA

M. Woods, Hanover

T. Scacco, Hanover

G. Pouncey Jr., MMMLaw

M. Krippel, Tronox

# Table 1 Maximum Gamma Counts for Caisson Potholing 465 N. Park Drive (Updated through May 23, 2008)

Caisson Location	Max Readings (cpm)	Meter	Soil Characterization	Comments	   Native (ft)
109, 98	12,200	1	silty sand		10
108, 97	13,100	1	brown silty sand		12
107, 96	11,000	1	dark brown silty sand		12
106, 95	11,900	1	brown silty clay		12
105, 94	15,200	1	brown silty clay		12
99, 100	13,000	1	sand, clays, large wood timber (depth unknown)		10
88, <b>89</b>	11,700	1	sand, clay, brick debris, large timbers, rail ties		10
86, 87	17,800	1	granite pavers, brick debris	sheet pile wall	ĺ
73, 74	14,100	1	sand, brick, granite, wash rock		
65, 66	13,500	1	darck silty clay, brick, granite, asphalt		
48	10,200	1	clay, sand, brick, saturated debris		
40	12,000	1	sand, saturated debris		
104, 93	13,500	1	light brown clays, brick	concrete obstruction @11'	12
103, 92	10,900	1	light brown clays, sand, brick debris		10
102, 91	9,300	1	sand	concrete obstruction @11.5	12
24	9,700	1	brick, granite pavers, rail ties, sand	found sewer line	
21	9,800	1	tie backs, rail ties, sand		5
22	13,500	1	rail ties, granite pavers, sand	wooden pier wall at west end	6
16	15,900	1	granite pavers, brick debris, clays, sand		6
14	22,000	1	granite road, concrete, sand, large wood timber	(depth unknown)	5
15	20,000	1	granite pavers, timbers, tie backs, brick, clays		4
30	15,200	2	brick, granite pavers, sand	obstruction @ 7'	
19	12,500	2	brick, granite pavers, sand	obstruction @ 6'	
28, 33	14,000	2	brick, granite pavers, sand	obstruction @ 9'	
34	8,800	2	brick, granite, sand	pier wall at west end	6
11A	13,900	2	granite pavers, brick, sand		6
23, 29	11,600	2	brick, granite pavers, sand	obstruction @ 9'	
44, 45	11,200	2	brick, granite pavers, sand	obstruction @ 12'	
19, 32	15,400	2	brick debris, sand		
25, 35	10,800	2_	#35 cleared, sand brick debris, granite pavers	obstruction @ 11' # 25	
55, 56	12,400	1	brick, granite, sand, saturated debris		
11 B (8' N original)	12,100	1	granite pavers, brick, sand		6
45	10,100	1	granite, brick, sand, saturated debris		

Notes:

- 1 Ludlum meter #172039 threshold equivalent to 7 1 pCi/g is 19,017 cpm.
- 2 Ludlum meter #176944 threshold equivalent to 7.1 pCi/g is 18,703 cpm.
- Site background 7,800 cpm (Ludlum meter #172039).
- Urban fill/soil typically found above native soil throughout site.
- Groundwater encountered in arm of slip approx 10-12'

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